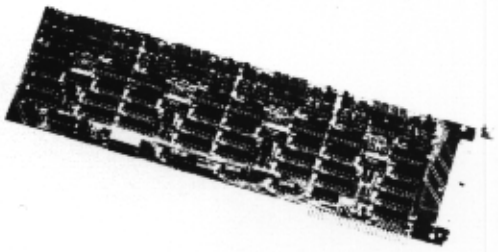
AX5212
8 Ch. Analog Output Board



Features

- Plug directly into the IBM PC/XT/AT or compatible computers
- 8 analog output channels with 12-bit resolution
- 0 to 5V, 0 to 10V, -2.5 to +2.5V, -5 to +5V or 4 to 20mA output ranges
- 33KHz throughput, single channel
- Optional AX751 universal terminal panel is available to help facilitate external connections

General Description

The AX5212 is an analog output board of AXIOM interface family, that can be plugged into any IBM PC/XT/AT or compatible computers. This board features 8 channels voltage or current outputs. Each channel is individually jumper selectable to any of the following ranges: 0 to 5V, 0 to 10V, -2.5 to +2.5V, -5 to +5V or 4 to 20mA current loop and is protected from shorts to ground. At each channel, there is a 12-bit DAC capable of producing throughput up to 33KHz. Typical applications for AX5212 include direct control valve positioning, waveform generation and utilizing a variable voltage output. AX5212 can also be used for analog control in process or laboratory applications where material transfer rates, fluid flow, power consumption, motor speed, temperature levels, etc., are to be controlled. Optional AX751 universal terminal panel is available to help facilitate external connections.

Specifications

Analog Output

- **Number of Channels:** 8
- **Output Ranges:**
  0 to 5V, 0 to 10V, ±2.5V, ±5V, 4 to +20mA current loop
- **Input Data Coding:**
  Straight binary (unipolar)
  Offset binary (bipolar)
- **Output Current for all Voltage Range:** ±5mA max.
- **Source Impedance:**
  0.1Ω max.
  0.02Ω typ

Accuracy

- **Resolution:** 12-bit
- **Nonlinearity:** ±1 LSB
- **Differential Nonlinearity:** ±1/2 LSB
- **Inherent Quantizing Error:** ±1/2 LSB
- **System Accuracy:**
  ±0.025%FSR (Voltage)
  ±0.05%FSR (Current)

Dynamic Performance

- **Settling Time to 1/2 LSB:**
  10V step : 33µs
  5V step : 16µs
- **Slew Rate:**
  0.3V/µs typ. (Voltage)
  1.2mA/µs (Current)
- **DAC Throughput Single Channel:** 33KHz

Thermal Characteristics

- **Zero Drift:** ±10µV/°C
- **Gain Drift:** ±20ppm of FSR/°C
- **Monotonicity:**
  Monotonic, 0 to +60 °C

Power Requirements

- **+12VDC** : 80mA typ.
- **-12VDC** : 60mA typ.
- **+ 5VDC** : 1.8 A typ.

Physical/Environmental

- **Dimensions:** 334 × 99mm
- **Weight:** 580g
- **Connector:**
  One 50-pin mating connector
- **Operating Temperature Range:**
  0 to +60 °C
- **Storage Temperature Range:**
  -25 to +85 °C
- **Relative Humidity:**
  0 to 90%, non-condensing

Ordering Guide

- **AX5212**
  8 Ch. Analog Output Board

Screw Terminal Panel

- **AX751**
  Universal Screw Terminal Panel